Professor

Ecole/Institution/Société:
Aalto University School, **Finland / Helsinki**

Discipline:
Electronics

Type d'emploi::
Full-time

Date de publication:
2022-04-27

Personne à contacter:
If you wish to apply for this position, please specify that you saw it on AKATECH.tech

Professor in Experimental solid state quantum devices and circuits

Aalto University is a community of bold thinkers where science and art meet technology and business. We are committed to identifying and solving grand societal challenges and building an innovative future. Aalto has six schools with nearly 11 000 students and a staff of more than 4000, of which 400 are professors. Our main campus is located in the Helsinki Metropolitan area, in Espoo, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

Aalto University School of Science invites applications for:

Professor Position (Tenure Track) in Experimental solid state quantum devices and circuits

Your role and goals

The position is open to talented individuals who hold a doctorate in physics or a closely related field and have excellent potential for a productive scientific career.

Highly qualified experts who have demonstrated outstanding research in quantum devices are eligible to apply. A broad range of topics are considered relevant for this position, including superconducting circuits and solid-state hybrid quantum devices.

Quantum devices and circuits provide access to new and promising phenomena and approaches for quantum technologies and information processing.

In hybrid devices, the potential of different quantum systems can be exploited by combining physical components that exhibit complementary functionalities. Applications of these technologies require expertise in control of noisy quantum systems. This professorship is supported by InstituteQ and the local world-class research infrastructure.

The successful candidate is expected to lead an outstanding independent research program that complements the existing research efforts at the Department of Applied Physics. The nominated candidate is expected to take responsibility for education in this field at Aalto University.

Preference will be given to candidates who have synergies with local groups and can utilize existing facilities. We mainly search for candidates for the Assistant Professor level, but exceptional

candidates for the Associate and Full Professor levels will be considered as well.

Your experience

Throughout their career, those in the academic tenure track system are expected to exercise and guide scientific research, to provide related higher academic education, to follow advances in their field, to participate in service to the Aalto University community, and to take part in societal interaction and international collaboration in their field.

We seek applicants who have

- A doctorate in a field closely related to this position;
- Potential to carry out research and attract research funding at the highest level;
- Potential to collaborate in an interdisciplinary environment;
- Potential to take responsibility for education and researcher training in quantum science and technology;
- Ability to be an effective teacher in the undergraduate and graduate degree programmes of the School of Science.

The applicants will be reviewed on the basis of their merits in research, teaching, academic/technological leadership, and activities in the scientific community, including in R&D, in accordance with their career stage. A more detailed description of the tenure track system at Aalto University is available at https://www.aalto.fi/en/tenure-track.

Aalto University is committed to promoting diversity, equality and non-discrimination in all its activities. Thus, we promote equal opportunities to learn, acquire knowledge, participate and to make a difference. We encourage qualified candidates from all backgrounds and especially women, who are underrepresented in this field, to apply.

As an equal-opportunity employer, Aalto University founds its recruitment decisions on applicants' competencies, skills and aptitudes. Aalto's recruitment processes are clearly defined, transparent and fair, and allow the relevant areas to be emphasized when recruiting people to positions in the various career systems and levels. Career breaks due to periods of parental leave and other obligatory absences, such as military service, will be taken into account to your benefit when considering applications.

What we offer

The professor will join an inspiring and supportive work community of experienced professionals and high-quality students. For available experimental infrastructure see the equipment of the Department of Applied Physics (https://www.aalto.fi/en/department-of-applied-physics/experimental-equipment-of-the-department-of-applied-physics) and Otanano national

infrastructure (https://www.aalto.fi/en/otanano) which includes Micronova (https://www.aalto.fi/en/services/about-micronova) and Nanomicroscopy Center (https://www.aalto.fi/en/otanano/nanomicroscopy-center). For existing computational infrastructure see Triton high-performance computing cluster (https://scicomp.aalto.fi/triton/), CSC – IT Center for Science (www.csc.fi) and LUMI supercomputer (https://www.lumi-supercomputer.eu/about-lumi/).

Aalto University follows the salary system of Finnish universities, but applicants may also provide salary requirements. As an employer, Aalto University provides excellent staff training and mentoring programmes as well as occupational health care services, commuter ticket benefits and campus sport facilities. In addition, we offer extensive research support services such as grant writing and project management. The position will be located at the Aalto University Otaniemi

Campus.

For more information

For additional information, please contact the Chair of the tenure track committee, Professor Jukka Pekola, tel. +358 503442697, or in questions related to the recruitment process HR Coordinator Lotta Maltolahti, tel. +358 504351512. E-mails: firstname.lastname@aalto.fi

Ready to apply?

The application material for the tenure track position includes

- Cover letter (max one page)
- Curriculum Vitae; Please use the template (opens in new window) recommended by The Finnish Advisory Board on Research Integrity (TENK). Include a list of publications in which the 10 most significant publications/patents are highlighted
- A research portfolio. This is a concise (4–10 pages) self-reflection on the merits, long-term vision, and research plan of the candidate. The portfolio is narrative text, supported by fact-based evidence.
- A teaching portfolio. The teaching portfolio describes the candidate's experience and vision of teaching. The portfolio summarises the candidate's teaching competence, experience and education, and includes a self-assessment of teaching development during the candidate's career. The portfolio is a concise (4–10 pages) narrative text, supported by fact-based evidence.

General instructions for applicants including language requirements and guidelines for compiling the teaching portfolio, research portfolio and CV are at Interested in joining our tenure track? | Aalto University.

All material should be submitted in English and must be enclosed as a single standard pdf file with file name "lastname_firstname_application.pdf". The first document of the pdf file is the cover letter, followed by the appendices in the order given in the list above. Applications should be written using a minimum font size of 11 pt. The application materials will not be returned. Please also note that our recruitment system will accept only a limited number of attachments - consequently please abide by our request to combine materials to a single pdf-file.

Applications for tenure track positions should be addressed to the Dean of Aalto University's School of Science and sent through the electronic recruitment system. Please refer to the title of the position concerned in your application.

If you already work at Aalto University or are a visitor here, please apply for the position by using your existing Workday user account! Please see how to do it here.

Aalto University reserves the right for justified reasons to leave the position open, to extend the application period or to consider candidates who have not submitted applications during the application period.

Why Aalto University?

For applicants selected for tenure track positions, the university provides relocation support, such as assistance with finding housing and kindergartens/schools located on campus and nearby, and career support for accompanying partners. Aalto University encourages flexible working hours to allow a healthy balance between work and family life.

For all new staff members and their families, Aalto University provides dedicated introductory social

and cultural events around the year. The university has six schools with nearly 11 000 students and 400 professors committed to building both foundations and innovative applications that shape the future through science, technology, art, and business, with excellent opportunities for collaboration with local partners at Aalto University, VTT Technical Research Centre of Finland and University of Helsinki. In addition to its strong academic community, the Helsinki region is a vibrant technology and innovation hub with easy access to major partners, both private and public.

The Department of Applied Physics is located at the main Otaniemi Campus of Aalto University, 15 minutes from the centre of Helsinki by metro. Helsinki International Airport (HEL) is one of the hubs of air traffic between Europe and Asia, with direct flights to many destinations around the world.

About living in Finland

Finland is a great place to live; it is a safe, politically stable and well-organized Nordic country with high-quality free education and affordable health care and childcare. Finland consistently ranks highly in terms of quality of life: http://www.oecdbetterlifeindex.org/countries/finland/ and was recently listed as the happiest country in the world: https://worldhappiness.report/blog/in-a-lamentable-year-finland-again-is-the-happiest-country-in-the-world/ . For more information about living in Finland, see: https://www.aalto.fi/services/about-finland.

More about Aalto University:

- Aalto.fi
- twitter.com/aaltouniversity
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